

Completed Pollution Prevention Project Case Study

United States Department of Energy
Office of Environmental Management
Fact Sheet

Reusable Chemical Resistant Personal Protective Equipment Los Alamos National Laboratory

Original Problem

Some of the employees at TA-54 work with radioactive waste, and their disposable personal protective equipment (PPE) was creating at least one cubic yard of mixed low level waste every year. Since this is a very expensive type of waste to treat, Louis Jalbert, Mark Waterman, and John Kelly searched for a way to reduce the quantity of disposable PPE used on site.

The Project Solution

Since other divisions at LANL used reusable PPE with success, the team at TA-54 decided to find out what types of chemical resistant reusable PPE was available. TA-54 employees still use disposable gloves since they allow the most dexterity, but now they lease reusable sleeves, aprons, coveralls, boot covers, and hoods. The leasing company launders the PPE after each use and returns it as part of the fee.

Value of Improvement

The decreased generation of mixed low level waste saves approximately \$100,000 every year. Leasing the reusable PPE instead of buying disposable PPE saves about \$30,000 annually. The workers have also found the reusable PPE to be more comfortable than the disposable kind.

Lifecycle Waste Reduction	
Lifecycle Waste Reduction	1 cu. yd / year
Commencement Date	1999
Project Useful Life (Years)	Indefinite



DOE Monetary Benefits

Total Project Cost	NA
Lifecycle Savings	\$130,000 / year
Return on Investment	NA

Benefits At-A-Glance

- Reusable PPE reduces the amount of mixed low level waste generated.
- Reusable PPE is more comfortable than poly-coated paper tyveks.
- Leasing reusable PPE is cheaper than buying disposable PPE.

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Summary Data	
Priority Area:	Waste Minimization Projects
Project Type:	Source Reduction
Total Project Cost:	NA
Lifecycle Savings:	\$130,000 per year (estimated)
Implementing Group:	FWO-SWO
Benefiting Group:	FWO-SWO
Useful Life Years:	Indefinite
Return on Investment:	NA
Lifecycle Waste Reduction:	1 cubic yard of MLLW per year (estimated)
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